

PRISTA® Bio-MHM 46

Hydraulic oils

Description and application

Prista® Bio-MHM 46 is a biodegradable hydraulic oil based on TMP esters of higher fatty acids and a special ashless additive package containing inhibitors of oxidation, rust, corrosion, and wear.

Prista® Bio-MHM 46 is intended for lubricating hydrostatic oil systems and friction mechanisms with circulating lubrication, operating within a temperature range of -20°C to +80°C. **Prista® Bio-MHM 46** biodegradable oil helps provide protection in mobile and stationary hydraulic equipment used in high-performance industrial and marine applications, including environmentally sensitive areas.

Prista® Bio-MHM 46 has been approved with the EU Ecolabel for lubricants, making it particularly suitable for applications where it may come into contact with the environment. The product meets the biodegradability requirements of ISO 15380.

Prista® Bio-MHM 46 is compatible as per ISO 15380 (HEES) with nitrile (NBR1) and fluorine (FKM2) rubber sealing materials used in most hydraulic systems. Where necessary, it is advisable to conduct a compatibility test with commercially available elastomers (AU, NBR1, HNBR/1, and FKM2), under test conditions tailored to the specific application.

When switching to **Prista® Bio-MHM 46**, the guidelines for changing fluids from mineral oils to environmentally acceptable fluids as per ISO 15380 (HEES) and the specific changeover procedures recommended by the original equipment manufacturers (OEMs) must be followed. Avoid spilling used and unused product into the environment. Product residues and packaging/containers must be disposed of at designated collection points.

Benefits

- Biodegradable and EU Ecolabel certified - **BG/027/001**
- Application in environmentally sensitive areas where pollution may occur
- Provides optimal lubrication
- Long service life
- Excellent corrosion protection



Specifications

ISO 3448	VG 46
ISO 6743/4	HEES
ISO 15380	HEES
VDMA 24568	HEES
W.G.K.	Class 0

Typical characteristics

Parameter	Test method	Typical Values
Density at 15°C, g/ml	EN ISO 3675	0.915
Color	ISO 2049	1.0
Kinematic viscosity at -20°C, mm ² /s	EN ISO 3104	1280
Kinematic viscosity at 0°C, mm ² /s	EN ISO 3104	290
Kinematic viscosity at 40°C, mm ² /s	EN ISO 3104	46
Kinematic viscosity at 100°C, mm ² /s	EN ISO 3104	9.1



Viscosity Index	ISO 2909	190
Flash Point, COC, °C	EN ISO 2592	300
Pour Point, °C	ISO 3016	-42
Acid number, mg KOH/g	ISO 6618	0.28
Foaming, ml (Tendency/Stability) -Seq I, at 24°C -Seq II, at 93.5°C -Seq III, at 24°C	ISO 6247	20/0 0/0 20/0
Air Release Properties at 50°C, min	ISO 9120	1
Rust Preventive Properties in the presence of distilled water	ISO 7120	Pass
Copper Strip Corrosion, 3 h, 100°C	ISO 2160	1a
Water Separability - time to 3 ml emulsion, min	ISO 6614	40-40-0/13
Biodegradability: 28 days, %	ISO 14593 or ISO 9439	> 60
Toxicity - Acute toxicity to fish, 96 h, LC50, mg/l - Acute toxicity to daphnia or copepods, 48 h, EC50, mg/l - Bacterial inhibition, 3 h, EC 50, mg/l	ISO 7346-2 ISO 6341 ISO 8192	>100 >100 >100

Important note: typical data values do not constitute a specification but are an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved.

Health, safety and handling

Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application.

For more information about product MSDS, terms and conditions for storage and shelf life please visit: www.prista-oil.com